

## Partial regularization method for nonmonotone variational inequalities

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### Abstract

A variational inequality with a nonmonotone mapping is considered in a Euclidean space. A regularization method with respect to some of the variables is proposed for its solution. The convergence of the method is proved under a coercivity-type condition. The method is applied to an implicit optimization problem with an arbitrary perturbing mapping. The solution technique combines partial regularization and the dual descent method. © 2008 MAIK Nauka.

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### Keywords

Nonmonotone variational inequalities, Partial regularization method, Proof of convergence